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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,861	06/21/2006	Soon Jo Lee	3449-0650PUS1	8586

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
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3749

NOTIFICATION DATE	DELIVERY MODE
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04/25/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,861	<b>Applicant(s)</b> LEE, SOON JO	
	<b>Examiner</b> Stephen Gravini	<b>Art Unit</b> 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070527</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Holst et al. (US 5,315,765). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Holst as comprising:

a key input unit **12** for selecting a drying course and a degree of dryness;

a humidity detecting unit **113** for detecting a humidity of objects, which are loaded in a drum to be dried, during a drying cycle corresponding to the selected drying course and degree of the dryness; and

a control unit **100** for determining if a lowest value is detected for a predetermined time by the humidity detecting unit and controlling the drying cycle such that an addition drying cycle is further performed for a predetermined drying time corresponding to an amount of the objects according to the determination if the lowest value is detected for the predetermined time by the humidity detecting unit. Holst also discloses the claimed features wherein when the lowest value is detected, the control unit controls such that the drying cycle corresponding to the drying course selected through the key input part can be further performed in figure 11A, wherein when the

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lowest value is detected, the control unit determines an amount of the objects loaded in the drum at column 8 line 36, wherein the predetermined time with respect to the lowest value is countered from the beginning of the drying cycle corresponding to the drying course and degree of the dryness in figure 11C, a load driving unit for controlling a load according to a control signal from the control unit at column 8 lines 27-59, wherein the humidity detecting unit is formed of an electrode sensor at column 8 lines 45-46.

Claims 8-9, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tatsumi et al. (US 5,172,490). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Tatsumi as comprising:

selecting a desired drying course and a desired degree of dryness at column 4 line 45 through column 5 line 2;

detecting a humidity of objects, which are loaded in the drum to be dried, through the humidity detecting unit while a drying cycle is performed according to the desired drying course and degree of the dryness at column 4 lines 27-45; and

controlling the drying cycle according to if there is a lowest value of the detected value for a predetermined time. Tatsumi also discloses the claimed features wherein the controlling the drying cycle comprises performing an additional drying cycle for a predetermined drying time when there is the lowest value of the detected value for the predetermined time at column 5 line 20 through column 6 line 25. Tatsumi also discloses the claimed features of determining a point of drying ending time when a voltage reaches a predetermined voltage after the additional drying cycle is performed

at column 6 lines 15-25, wherein the controlling the drying cycle comprises determining an amount of the objects loaded in the drum when the lowest value is detected at column 11 lines 16-28.

Claims 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jeong et al. (US 20040060197). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Jeong as comprising:

detecting a humidity of objects, which are loaded in the drum to be dried, through the humidity detecting unit at paragraph [0041]; and

controlling a drying cycle according to if there is a lowest value of the detected value for a predetermined time at paragraph [0044]. Jeong also discloses the claimed features including before the detecting the humidity is performed, selecting a desired drying course and a desired degree of dryness and performing the drying cycle according to the selected drying course and the desired degree of the dryness at paragraph [0045], wherein the detecting the humidity is performed while the drying cycle is performed according to the desired drying *course* and degree of the dryness at paragraph [0048], wherein the predetermined time with respect to the lowest value is countered from the beginning of the drying cycle corresponding to the drying course and degree of the dryness at paragraph [0052], wherein the controlling the drying cycle comprises performing the drying cycle for a predetermined drying time when there is the lowest value of the detected value for the predetermined time at paragraph [0054], determining a point of drying ending time when a voltage reaches a predetermined voltage after the drying cycle is performed at paragraph [0040], and wherein the

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controlling the drying cycle comprises determining an amount of the objects loaded in the drum when the lowest value is detected at paragraph [0059].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holst. Holst discloses the claimed invention, as rejected above, except for the claimed predetermined time of ten minutes. It would have been an obvious matter of design choice to provide a predetermined time, since the teachings of Holst would perform the invention as claimed regardless of the amount of time predetermined.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsumi in view of Chernetski (US 2004/066303). Tatsumi discloses the claimed invention, as rejected above, except for the claimed predetermined time of ten minutes. It would have been an obvious matter of design choice to provide a predetermined

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time, since the teachings of Tatsumi would perform the invention as claimed regardless of the amount of time predetermined. Furthermore, Tatsumi discloses the claimed invention, except for the claimed feature of determining a point of drying ending time when a voltage reaches a predetermined voltage after the additional drying cycle is performed. Chernetski, another dryer controller method, discloses that feature in the abstract of that reference. It would have been obvious to one skilled in the art to combine the teachings of Tatsumi with the ending time determination step, as disclosed in Chernetski, for the purpose of optimizing drying efficiency by minimizing energy used in a drying time period.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,931,760 in view

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of Jeong. Applicant assignee's earlier patent recites the claimed invention, except for the claimed drum. Jeong, another dryer controller method, discloses that feature at paragraph [0004]. It would have been obvious to one skilled in the art to combine the applicant assignee patented invention with the drum, as disclosed in Jeong, for the purpose of optimizing drying efficiency by minimizing energy used in a drying time period.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on 571 272 6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Gravini/  
Primary Examiner, Art Unit 3749